

STATE OF ALASKA

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
WASTEWATER DISCHARGE AUTHORIZATION PROGRAM**

SEAN PARNELL, GOVERNOR

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February 1, 2012

Mr. Forrest Cole
United States Forest Service
648 Mission Road Street
Ketchikan, Alaska 99901

ADEC File No. 1521.98.001

Re: **Authorization AKG701063**

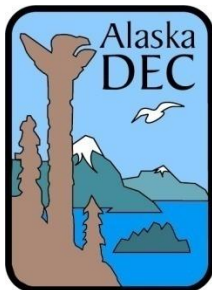
Dear Mr. Cole:

The Alaska Department of Environmental Conservation has completed its review of the Notice of Intent for the **Pothole Log Storage Area, AKG701063** under Alaska Pollutant Discharge Elimination System General Permit AKG701000 and has drafted the following authorization for public notice. The document will be publically noticed from February 2, 2012 to March 3, 2012 and may be viewed on the Wastewater Discharge Authorization website at <http://www.dec.alaska.gov/water/wwdp/index.htm>.

If you have any technical questions concerning this authorization, please contact Marc. H. Bentley, M.S. at marc.bentley@alaska.gov or (907) 269-6287.

Sincerely,
SIGNATURE ON FILE
Sharon Morgan
Program Manager

Enclosure: Authorization AKG701063
cc: Marc Bentley, DEC



Alaska Department of Environmental Conservation

Division of Water

AUTHORIZATION TO DISCHARGE

AUTHORIZATION TO DISCHARGE UNDER THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES) FOR LOG TRANSFER FACILITIES IN ALASKA

FACILITY ASSIGNED AUTHORIZATION NUMBER: AKG701063

ADEC File Number: 1521.98.001

GENERAL PERMIT NUMBER: AKG701000

See the General Permit and the 401 Certification for all permit requirements.

The following facility is authorized to discharge in accordance with the terms of the General Permit AKG701000, Clean Water Act §401 Certification of AKG701000, and any site specific requirements listed in this authorization.

The authorization effective date is {insert date}.

The authorization to discharge expires at midnight **November 30, 2013**.

The permittee must reapply for an authorization on or before **June 3, 2013** if the permittee intends to continue operations and discharges from the facility.

SECTION 1 – RESPONSIBLE PARTY INFORMATION

Issued to: United States Forest Service

SECTION 2 – FACILITY INFORMATION

Facility Name: **Pothole Log Storage Area**

Facility Classification: **II**

Facility Location: 23.6 miles south of Petersburg, Alaska 99644
(NAD 83 Datum) Latitude 56.541967N Longitude 132.985367W

APDES Permit Category: Log Storage Facility

Description of Discharge: The permittee is authorized to discharge bark and wood debris associated with in-water log storage to marine water within the project area as specified in the Notice of Intent in accordance within the conditions set forth in the General Permit and this authorization.

DNR Project Information: Land Administration System Case #28108

SECTION 3 – REGULATED DISCHARGE INFORMATION – DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS
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Discharge Area:	Alexander Bay (the Pothole), Woewodski Island due west of Deception Point, 23.6 miles south of Petersburg, Alaska 99644			
NAD 83 Datum	<u>Latitude</u>	<u>56.541967N</u>	<u>Longitude</u>	<u>132.985367W</u>

LIMITATIONS

Volume of Timber

The volume of timber stored at a facility shall not exceed the maximum annual and total volumes of timber specified in the Notice of Intent.

Sensitive Habitats

The guideline for the storage of logs not to be sited on or adjacent to (i.e., near enough to affect) extensive tide flats, salt marshes, kelp or eelgrass beds, seaweed harvest areas, or shellfish concentration areas, Part III.B.4 of General Permit AKG701000, is waived.

Rafting and Storage

The guideline for the storage of logs in water less than 40 feet deep at Mean Lower Low Water (MLLW), Part III.B.5 of General Permit AKG701000, is waived.

Petroleum Hydrocarbons, Oil, and Grease

There shall be no discharge of petroleum hydrocarbons, oil, or grease that causes a film, sheen, or discoloration on the surface of floor of the waterbody or adjoining shorelines

Residues

Except as authorized by a zone of deposit, there shall be no discharge of slash, limbs, scum, floating solids, oily wastes, foam or other residues.

MONITORING REQUIREMENTS

Oil Sheen Monitoring

During periods of log transfer operation, receiving waters at the log storage area (LSA) shall be visually monitored daily for the presence of an oil sheen. The presence of any oil sheen shall be recorded with the date, name of observer, cause or source of the oil sheen, and corrective measures taken.

Bark Monitoring

Bark monitoring is required annually for all permittees who transfer a total volume of 30 million board feet (mmbf) per year for this authorization and which are located in water depths located in less than -100' at MLLW. Underwater bark monitoring is required annually for all permittees who transfer a total of 15 mmbf or more for the duration of the General Permit.

REPORTING REQUIREMENTS

An Annual Report of all log transfer activities discharges, periods of noncompliance, and facility changes shall be submitted by January 31 of the year following each year of operations. If the LSA was not operated during the calendar year, the permittee must so indicate in the Annual Report.

SECTION 4 – RECEIVING AREA/RECEIVING WATER INFORMATION

Receiving Area Name: Alexander Bay (the Pothole)

Receiving Area: (NAD 83 Datum) Latitude 56.541967N Longitude 132.985367W

Receiving Area Compliance Point: All points outside of the zone of deposit.

Zone of Deposit Authorization: This discharge is assigned a zone of deposit to meet the Alaska Water Quality Standards (18 AAC 70) for residues. The permittee has authorization for the deposit of substances on the sea floor within the area of the defined zone of deposit.

Zone of Deposit Description: 9.2 acres delienated within the state tideland lease Land Adminstrative System Case #28108.

SECTION 5 – SITE SPECIFIC REQUIREMENTS (Any additional requirements to those already listed in the General Permit)

The facility is granted a waiver from Alaska Timber Task Force (ATTF) Guidelines regarding sensitive habitats and depth requirements for the storage and rafting of logs. See attached decision document.

SECTION 6 – CERTIFICATION/SIGNATURE

Signature

Sharon Morgan

Printed Name

Date

Program Manager

Title

SECTION 7 – ATTACHMENTS

1. Decision Document

DECISION DOCUMENT
Alaska Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
January 20, 2012

LTF General Permit
Pothole LSA
Alexander Bay (the Pothole)
United States Forest Service
Authorization No. AK-G70-1063

The United States Forest Service (USFS) submitted a Notice of Intent requesting authorization to discharge bark and wood debris at the Pothole Log Storage Area (LSA) under the Alaska Pollutant Discharge Elimination System (APDES) General Permit for Log Transfer Facility, AKG701000 (General Permit). The location is Alexander Bay (the Pothole), Woewodski Island, due west of Deception Point, 23.6 miles south of Petersburg, AK 99644, at the latitude 56.541967N and longitude of 132.985367W.

This Decision Document presents an assessment of regulatory issues with respect to the requested authorization and requested waivers for sensitive habitats and storage and rafting.

Background

The USFS submitted a NOI with requests for waivers on August 16, 2011. The Pothole LSA is a proposed new LSA to serve as temporary storage of logs that will be shuttled via Wrangell Narrows from Tongass National Forest timber sales in Southeast Alaska to points north. The Pothole LSA is the only practicable location for this shuttling activity because of strong currents, narrow passage, and navigational hazards with towing larger log rafts in Wrangell Narrows; safety and operational constraints associated with alternate sites; and prohibitive cost associated with barging.

The proposed project area is 400 by 1000 feet, which is roughly 9.2 acres in area. Smaller rafts will make up a larger raft with approximately the same dimensions as the project area prior to being towed to points north.

Antidegradation Policy

The Antidegradation Policy of the Alaska Water Quality Standards (18 AAC 70.015) states that existing water uses and the level of water quality necessary to protect existing uses must be maintained and protected. Alaska Department of Environmental Conservation (DEC or Department) may allow reduction of water quality only after finding that five specific criteria are met. These criteria and the Department's findings, following consultation with the Departments of Fish and Game and Natural Resources, are set out below.

1. 18 AAC 70.015 (a)(2)(A). Allowing lower water quality is necessary to accommodate important economic or social development in the area where the water is located.

The applicant has provided adequate economic information to satisfy this criterion. The NOI states that the Pothole LSA will play an integral role in the success of USFS's timber harvesting program. Employment estimates for the Tonka timber sale (Tonka Draft Environmental Impact

Statement) are 100 to 250 people depending on the alternative chosen. The Pothole LSA plays an integral part of the harvest and resource transportation process sale, and as such, a major portion of the employment will depend on use of the LSA. The stevedoring operation additionally provides approximately 5-10 part-time jobs. These timber harvest jobs provide a significant contribution to the Petersburg, Wrangell, and Southeast Alaska economies.

DEC concurs that operation of the Pothole LSA constitutes important economic development in the area. The residue criteria of the water quality standards prohibit any waste material in the water or on the bottom; however, DEC believes that a zone of deposit authorization and the corresponding lowering of water quality within the zone of deposit are necessary to accommodate operation of the LSA. DEC finds that this criterion is met.

2. 18 AAC 70.015 (a)(2)(B). Except as allowed under this subsection, reducing water quality will not violate the applicable criteria of 18 AAC 70.020 or 18 AAC 70.235 or the whole effluent toxicity limit in 18 AAC 70.030.

The permitted site will be used for log storage only and, relative to a log transfer facility, there would be less sloughing off of bark. The bulk of bark that might be expected to be present on logs being stored will have already been sloughed off during transit to the log storage site. Despite having been used extensively for several years, the site is not on Alaska's list of impaired waterbodies or Clean Water Act §303(d) list. In addition, results of dive surveys from 1998 – 2011 show that bark deposition in the zone of deposit has never exceeded 3 centimeters of discontinuous coverage and only very trace amounts have been observed outside the zone of deposit. Dive surveys also showed that the marine community is healthy and typical of a soft silt substrate within and outside the zone of deposit. DEC finds that this criterion is met.

3. 18 AAC 70.015 (a)(2)(C). The resulting water quality will be adequate to fully protect existing uses of the water.

The Pothole LSA was approved by the Alaska Coastal Management Program in 2007, and operations began at that time until the end of 2008. The project area is for log storage only and covers approximately 9.2 acres. There is no activity involving putting logs in the water or removal from the water at this site. The Pothole LSA was selected as the most feasible site in the area to locate an LSA, despite the shallow waters utilized for storage.

In its memo dated July 27, 2012, the Alaska Department of Fish and Game (ADF&G) does not report any other human activity other than intermittent log storage and seasonal crab fishing. However, the Department of Natural Resources (DNR) reports in the Central/Southern Southeast area plan (2000) for unit PT-52 (Woewodski Island) that the general area is used by deer and waterfowl hunters as well as furbearer trappers. The area plan does not indicate what the volume of hunters or trappers is, but it is assumed to be small. In the same memo dated July 27, 2011, ADF&G states that the proposed LSA occupies approximately 9.2 acres, less than 3% of the PT-52 unit designated as Habitat (Ha) and Harvest (Hv). The DNR Area Plan PT-52 map (2000) shows that the Pothole makes-up most of this unit. ADF&G also states that the proposed activity represents a manageable risk and will not prevent continued protection of wildlife habitat and commercial fishing values in the Pothole.

Dive surveys were conducted at the LSA in 1998 by Craig's Dive Service and in 2007 and 2011 by Haggitt Consulting. The 1998 dive survey concluded that "Bark debris was present in the form of scattered small chips and chunks with enough accumulation to have measurable depth and coverage. Nowhere did the debris appear to trend towards more complete and deeper coverage. Debris deposition from the stored log bundles does not appear to be significant." The 2007 dive survey concluded that "The Log Storage activities at the Pothole LSA are not having an adverse effect on the marine life. It would appear that the logs stored there have lost most of the chaffing bark debris prior to storage at the facility." All bark measurements from this survey were less than 1 inch in thickness with zero to a trace as a percent of coverage. The 2011 dive survey reported zero percent continuous or discontinuous bark coverage and a healthy marine community typical of areas with natural woody debris and silt substrate.

DEC believes that ecologically significant effects from the discharge and accumulation of bark and wood debris are not likely to occur outside the zone of deposit and that existing uses of the water body will be fully protected outside the zone of deposit. DEC finds this criterion is met.

4. 18 AAC 70.015 (a)(2)(D). The methods of pollution prevention, control, and treatment found by the department be most effective and reasonable will be applied to all wastes and other substances to be discharged.

The methods of prevention, control, and treatment DEC finds to be most effective are the practices and requirements set out in the General Permit. The General Permit requires the operator to follow prescribed best management practices and to develop and implement a Pollution Prevention Plan to control waste discharge. The General Permit also requires the operator to prepare a proposed remediation plan if continuous cover by bark and wood debris exceeds a threshold of one acre.

DEC concludes that compliance with the General Permit conditions will ensure that the most effective and reasonable methods of pollution prevention, control and treatment will be applied. DEC finds that this criterion is met.

5. 18 AAC 70.015 (a)(2)(E). All wastes and other substances discharged will be treated and controlled to achieve

- (i) for new and existing point sources, the highest statutory and regulatory requirements; and**
- (ii) for non-point sources, all cost-effective and reasonable best management practices.**

DEC understands that no Best Available Technology treatment and control requirements are specifically applicable to LSAs. DEC believes that the highest statutory and regulatory requirements for point sources and the cost-effective and reasonable best management practices for non-point sources as cited in 18 AAC 83.475 are the practices and requirements set out in the General Permit. DEC finds that this criterion is met.

Request for Waivers

The applicant requested two waivers from the requirements of General Permit AKG701000, page 3.

III.B. Areas Not Meeting the Alaska Timber Task Force Guidelines

The General Permit does not authorize discharges into areas which do not meet the Alaska Timber Task Force (ATTF) Guidelines listed below:

- 4. Sensitive Habitats:** Log transfer and storage facilities should not be sited on or adjacent to (i.e., near enough to affect) extensive tide flats, salt marshes, kelp or eelgrass beds, seaweed harvest areas, or shellfish concentration areas.

Rationale for Waiver from item 4 - Sensitive Habitats:

The Pothole has been in use for log transfer and storage for approximately 40 years and has shown no long term degradation in marine habitat or communities. Dive surveys performed in 1998, 2007, and 2011 show insignificant amounts of remaining bark coverage occurring only in the zone of deposit with evaluations showing no adverse effects to the marine community. In addition, the 2007 dive survey concluded that most of the bark on logs is sloughed off during transit of the logs prior to storage in the Pothole. ADF&G stated in a memo dated July 27, 2011 that the approximately 9.2 acre project area comprises approximately 3% of unit PT-52, the majority of which is comprised by the Pothole. The memo goes on to state that while log transfer activities in general may represent a threat to the habitat, it is a manageable risk and annual bark surveys can be used to inform future management decisions. The site will be used for storage only and long term storage is not planned for the area.

Conclusion Based on information provided by ADF&G, review of past dive surveys, and assessments of the marine community, as well as experience with other log transfer facility (LTF) and LSA facilities similar to what is proposed in the Pothole, DEC finds that the request for waiver from “Sensitive Habitats” has merit. The authorization of the Pothole LSA under the APDES General Permit for Log Transfer Facility is consistent with the Antidegradation Policy of the Alaska Water Quality Standards.

- 5. Storage and Rafting:** Log storage and rafting areas should be located in areas where logs and log rafts will not ground at low tide. Log rafting and storage areas shall be located in waters at least 40 feet deep measured at Mean Lower Low Water (MLLW).

Rationale for Waiver from item 5 - Storage and Rafting:

Although the proposed site does not meet ATTF Guidelines of at least 40 feet of water, the water depth is adequate for the temporary storage of logs so that they will not go aground at low tide. This assessment has been confirmed by the 2011 dive survey, which measured three (3) sampling points out of 100 with MLLW depths of 12 feet. The remaining sample points

were 13 feet or deeper. While DEC would prefer to permit only facilities that fully adhere to ATTF Guidelines, it is not possible in every instance. Guidelines are not requirements that must be fully implemented. Prior assessments and testaments concluded that alternative sites are considered inappropriate due to contamination or are too dangerous due to strong currents and uncharted rocks. Barging was deemed cost prohibitive, as transit costs would double. From 1985 – 1988, this site was selected and approved by federal and State agencies after a careful evaluation of alternatives, as well as approval by the Alaska Coastal Management Program.

Conclusion Based on information in the USFS's application, as well as assessments of the proposed site and alternative sites to the Pothole LSA made by consultants and other professionals with expert knowledge of currents and tides in the Woesodski Island area, DEC concluded in prior litigation documents that grounding of logs at low tide will not occur despite storage of logs in less than 40 feet. Furthermore, DEC concurred that there is no practicable alternative site for log storage. This conclusion has not changed.

Zone of Deposit

Under the zone of deposit provision of the Alaska Water Quality Standards (18 AAC 70.210), the Department may allow deposit of substances on the bottom of marine waters within limits set by the Department. The water quality criteria and the antidegradation requirement may be exceeded in a zone of deposit but must be met at every point outside the zone of deposit.

In the Certificate of Reasonable Assurance that is part of the General Permit, the Department allows a zone of deposit for the accumulation of bark and wood debris on the ocean bottom within the project area of a log LTF or LSA. The zone of deposit may include "continuous coverage," "discontinuous coverage," and "trace coverage" by bark and wood debris. The area limit is the project area of the LTF or LSA.

However, the Certificate of Reasonable Assurance requires that if a bark monitoring survey shows that continuous coverage by any existing bark and wood debris, whenever deposited, exceeds both 1.0 acre and a thickness of 10 centimeters at any point, the operator must submit a proposed Remediation Plan to the Department to reduce existing and future continuous coverage to less than both 1.0 acre and a thickness of 10 centimeters at any point. The plan is subject to Department approval, modification, or denial. In this manner, the Department establishes a one-acre continuous bark "threshold", which if exceeded requires remedial action.

Under the Certificate of Reasonable Assurance and review of a Notice of Intent, the Department may determine that a zone of deposit is not appropriate at the proposed location and is not authorized. In such a case, authorization under the General Permit likely would be denied. The basis for this determination is consideration of certain terms of the General Permit, the six factors listed below, and the antidegradation requirements.

Zone of Deposit Assessment

The Department reviewed the Notice of Intent, including bark monitoring surveys from 1998, 2007, and 2011, along with the applicant's request for waivers for sensitive habitat and depth

requirements. The Department reviewed assessments, evaluations, and conclusions from previous permit applications associated with the Pothole LSA, and has consulted with the Departments of Fish and Game and Natural Resources. The Department concludes that the zone of deposit authorized in the 401 Certification is acceptable at the location of the Pothole LSA.

In authorizing a zone of deposit, the Department must consider: (1) alternatives that would eliminate or reduce adverse effects of the deposit; (2) potential direct and indirect impacts on human health; (3) potential impacts on aquatic life and other wildlife; (4) potential impacts on other uses of the waterbody; (5) expected duration of the deposit and any adverse effects; and (6) potential transport of pollutants by biological, physical, and chemical processes.

- 1) The zone of deposit provision requires the Department to consider alternatives that would eliminate or reduce adverse effects of the deposit. Further, the General Permit requires the Notice of Intent to include an assessment of the feasibility of onshore log storage and barging. The following is the Department's assessment of alternative considerations:
 - a) The General Permit requires implementation of best management practices "to minimize the discharge of bark and other pollutants from the LTF," and requires a Pollution Prevention Plan to "identify and employ all reasonable practices to avoid the discharge of bark, wood, debris, and other pollutants to waters of the United States, and to contain the discharge to the smallest area that is practicable and is consistent with the safe and orderly operation of the log transfer facility." In terms of operational practices, these requirements clearly are intended to "eliminate or reduce adverse effects of the deposit."
 - b) The Pothole LSA will utilize in-water storage of logs. The Department recognizes that direct barge transport would eliminate bark discharge and accumulation and the need for a zone of deposit. Transporting logs by barge was evaluated in the Environmental Assessment prepared for siting the LTF in the Kodiak National Wildlife Refuge and was found to lack both environmental and economic justification. A barge operation requires substantially more land area for log storage and requires a rock fill barge landing of roughly 3.6 acres. The capital cost of barge facilities was estimated at \$665,000. Since the logs are loaded onto a ship just ½ mile distant from the LTF, barges would cycle between shore and ship, which means inefficient handling of logs. There is no compelling justification for barging of logs.
 - c) Documents from the litigation process associated with Boyer Towing's application for its now expired individual permit assessed six (6) other locations deemed as possible alternative sites. DEC agreed with the declaration of the applicant or its representatives that the alternative sites were impractical, uneconomical, or unsafe.
2. Biological and human uses of the area are described above in the Antidegradation Analysis, 18 AAC 70.015 (a)(2)(C). The Department concludes based on case histories from similar sites, as well as input from ADF&G, that uses will be fully protected outside the zone of deposit and that impacts on human health are not at issue.

3. and 4. A dive survey conducted in 1998 by Craig's Dive Center while the site was being used for log storage by Boyer Towing reported that debris deposition from stored log bundles did not appear to be significant, and that the marine life community appeared to be healthy with no observed detrimental effects. Dive surveys performed by Haggitt Consulting as recently as September 2011 showed that marine life at the Pothole is consistent with the type and diversity commonly found near areas with wood debris as part of the substrate. In addition, recent input from ADF&G cites that the percentage of PT-52 with a potential to be affected by the LSA is 3%. Given that crab fishing and log storage are the only two uses that occur with any frequency at the Pothole LSA, DEC concludes that other existing uses for the water will be fully protected.

5. DEC recognizes that most published scientific literature projects that the duration of a bark deposit may be long term, even many decades. However, 2007 DEC-funded studies conducted at legacy Clean Water Act §303(d) LTF sites in Southeast Alaska (Hobart Bay, Twelvemile Arm, Schulze Cove, and Thorne Bay) found that the bark piles at these sites had either dispersed and were no longer visible or had been incorporated into native sediments. Recent dive surveys performed at the Pothole LSA have revealed only sparse presence of bark at the site.

6. Bark that does not accumulate within the project area will be transported elsewhere and dispersed. The Department has no information on quantities of bark that are transported beyond the project area.

Conclusion The Department concludes that in-water storage, bark discharge, and bark accumulation are consistent with the zone of deposit provision.